

ABSTRACT

Baseband signal generator 107 outputs a transmission baseband signal with a coefficient for setting antenna directivity multiplied and a gain control signal to transmit power amplifier 114 and transmit power amplifier 114 amplifies the transmission baseband signal with a gain corresponding to the gain control signal and transmits the signal from antenna 102.

ATT 118 attenuates the output signal of amplifier 114 according to the gain control signal, amplitude/phase comparator 110 calculates amplitude and phase errors between the attenuated signal with a frequency equalized by frequency conversion sections 120 and 121 and the input signal of amplifier 114 and phase/amplitude correction section 108 corrects the transmission baseband signal and gain control signal so as to eliminate the errors. This makes it possible to correct the amplitude and phase shifts of the transmission signal during a communication with other apparatuses and reduce the size and cost of the apparatus.